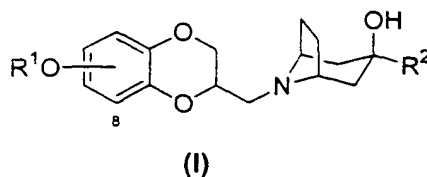


CLAIMS

What is claimed is:

1. A compound of Formula I:



wherein

- R^1 is a straight-chained alkyl of 1 to 6 carbon atoms, or a branched chain alkyl of 3 to 8 carbon atoms; and
- R^2 is phenyl, naphthyl, anthracyl, phenanthryl, pyridyl, pyrimidyl, triazinyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, benzothienyl, oxazolyl, or thiazolyl, each optionally substituted with 0 to 3 substituents selected from straight-chain alkyl of 1 to 6 carbon atoms, branched-chain alkyl of 3 to 8 carbon atoms, alkoxy of 1 to 6 carbon atoms, mono- or dialkylamino in which each alkyl group has 1 to 6 carbon atoms, nitro, halo, amino, cyano, trifluoromethyl, trifluoromethoxy, and hydroxy; and pharmaceutically acceptable salts thereof.
2. A compound of Claim 1 wherein R^1 is a straight-chained alkyl of 1 to 3 carbon atoms, or a branched chain alkyl of 3 to 6 carbon atoms.
3. A compound of Claim 1 wherein R^1 is a straight-chained alkyl of 1 or 2 carbon atoms.
4. A compound of Claim 1 wherein R^2 is phenyl, naphthyl, pyridyl, pyrimidyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, or benzothienyl; each optionally substituted with 1 to 3 substituents the same or different selected from straight-chain alkyl of 1 to 3 carbon atoms, branched-chain alkyl of 3 to 6 carbon atoms, alkoxy of 1 to 3 carbon atoms, mono- or di-alkylamino in which each alkyl group has 1 to 3 carbon atoms, nitro, amino, cyano, halogen, trifluoromethyl, trifluoromethoxy, and hydroxy.

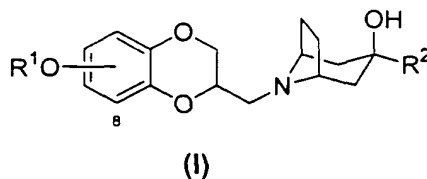
5. A compound of Claim 1 wherein R² is phenyl, naphthyl, pyridyl, pyrrolyl, indolyl, or benzothienyl; each optionally substituted with 1 to 3 substituents the same or different selected from nitro, amino, cyano, halogen, trifluoromethyl, trifluoromethoxy, and hydroxy.
- 5
6. A compound of Claim 1 wherein R² is trifluoromethylphenyl or methoxyphenyl.
7. A compound of Claim 1 wherein the R¹O substituent is bonded to the 1,4-benzodioxan nucleus is at the 8 position.
- 10
8. A compound of Claim 1 wherein R¹ is a straight-chained alkyl of 1 to 3 carbon atoms, or a branched chain alkyl of 3 to 6 carbon atoms and R² is phenyl, naphthyl, pyridyl, pyrimidyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, or benzothienyl; each optionally substituted with 0 to 3 substituents selected from
- 15 straight-chain alkyl of 1 to 3 carbon atoms, branched-chain alkyl of 3 to 6 carbon atoms, alkoxy of 1 to 3 carbon atoms, mono- or di-alkylamino in which each alkyl group has 1 to 3 carbon atoms, halogen, trifluoromethyl, trifluoromethoxy, and hydroxy.
- 20
9. A compound of Claim 1 wherein R¹ is a straight-chained alkyl of 1 or 2 carbon atoms, and R² is phenyl, naphthyl, pyridyl, pyrrolyl, indolyl, or benzothienyl; each optionally substituted with a 0 to 3 substituents selected from nitro, amino, cyano, halogen, trifluoromethyl, trifluoromethoxy, and hydroxy.
- 25
10. A compound of Claim 1 wherein R¹ is a straight chain alkyl of 1 or 2 carbon atoms and R² is trifluoromethylphenyl or methoxyphenyl.
11. A compound of Claim 1 which is (S)-8-(8-ethoxy-2,3-dihydrobenzo- [1,4]dioxin-2-ylmethyl)-3-naphthalen-2-yl-8-aza-bicyclo[3.2.1]octan-3-ol or a pharmaceutically
- 30 acceptable salt thereof.

12. A compound of Claim 1 which is (S)-8-(8-ethoxy-2,3-dihydro-benzo[1,4]dioxin-2-ylmethyl)-3-phenyl-8-aza-bicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.
- 5 13. A compound of Claim 1 which is (S)-3-benzo[b]thiophen-3-yl-8-(8-ethoxy-2,3-dihydro-benzo[1,4]dioxin-2-ylmethyl)-8-aza-bicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.
14. A compound of Claim 1 which is 8-([(2S)-8-ethoxy-2,3-dihydrobenzo-
10 [1,4]dioxin-2-yl]methyl)-3-pyridin-2-yl-8-aza-bicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.
- 15 15. A compound of Claim 1 which is 8-([(2S)-8-ethoxy-2,3-dihydrobenzo-[1,4]dioxin-2-yl]methyl)-3-(3-trifluoromethyl-phenyl)-8-aza-bicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.
16. A compound of Claim 1 which is 8-([(2S)-8-methoxy-2,3-dihydro-1,4-benzodioxin-2-yl]methyl)-3-(2-methoxyphenyl)-8-azabicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.
- 20 17. A compound of Claim 1 which is 8-([(2S)-8-methoxy-2,3-dihydro-1,4-benzodioxin-2-yl]methyl)-3-[3-(trifluoromethyl)phenyl]-8-azabicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.
- 25 18. A compound of Claim 1 which is 8-([(2S)-8-methoxy-2,3-dihydro-1,4-benzodioxin-2-yl]methyl)-3-(2-pyridinyl)-8-azabicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.
- 30 19. A compound of Claim 1 which is 3-(1-benzothien-3-yl)-8-([(2S)-8-methoxy-2,3-dihydro-1,4-benzodioxin-2-yl]methyl)-8-azabicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.

20. A compound of Claim 1 which is 8-[[[(2S)-8-methoxy-2,3-dihydro-1,4-benzodioxin-2-yl]methyl]-3-phenyl-8-azabicyclo[3.2.1]octan-3-ol or a pharmaceutically acceptable salt thereof.

5 21. A compound of Claim 1 which is 3-((2S)-8-methoxy-2,3-dihydrobenzo-[1,4]dioxin-2-ylmethyl)-8-naphthalen-2-yl-3-aza-bicyclo[3.2.1]octan-8-ol or a pharmaceutically acceptable salt thereof.

10 22. A method of treating a subject suffering from a condition selected from the group consisting of cognitive deficits, neurodegenerative disease, or schizophrenia which comprises providing to the subject suffering from said condition, a therapeutically effective amount of a compound of formula I



15 wherein

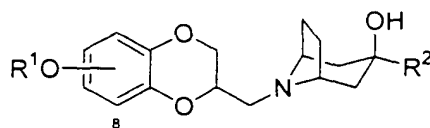
R¹ is a straight-chained alkyl of 1 to 6 carbon atoms, or a branched chain alkyl of 3 to 8 carbon atoms; and

20 R² is phenyl, naphthyl, anthracyl, phenanthryl, pyridyl, pyrimidyl, triazinyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, benzothienyl, oxazolyl, or thiazolyl, each optionally substituted with 0 to 3 substituents selected from straight-chain alkyl of 1 to 6 carbon atoms, branched-chain alkyl of 3 to 8 carbon atoms, alkoxy of 1 to 6 carbon atoms, mono- or dialkylamino in which each alkyl group has 1 to 6 carbon atoms, nitro, halo, amino, cyano, trifluoromethyl, trifluoromethoxy, and hydroxy;

25 and pharmaceutically acceptable salts thereof.

23. The method of Claim 22 wherein the subject is a human.

30 24. A method of treating a subject suffering from a condition selected from the group consisting of anxiety, aggression and stress which comprises providing to the subject suffering from said condition, a therapeutically effective amount of a compound of formula I



(I)

wherein

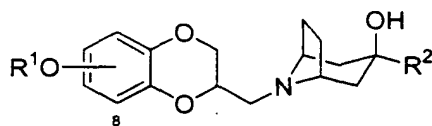
R¹ is a straight-chained alkyl of 1 to 6 carbon atoms, or a branched chain alkyl of 3 to 8 carbon atoms; and

R² is phenyl, naphthyl, anthracyl, phenanthryl, pyridyl, pyrimidyl, triazinyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, benzothienyl, oxazolyl, or thiazolyl, each optionally substituted with 0 to 3 substituents selected from straight-chain alkyl of 1 to 6 carbon atoms, branched-chain alkyl of 3 to 8 carbon atoms, alkoxy of 1 to 6 carbon atoms, mono- or dialkylamino in which each alkyl group has 1 to 6 carbon atoms, nitro, halo, amino, cyano, trifluoromethyl, trifluoromethoxy, and hydroxy;

and pharmaceutically acceptable salts thereof.

25. The method of Claim 24 wherein the subject is a human.

26. A method of treating a subject suffering from a condition selected from the group consisting of eating disorders, disorders of thermoregulation, sleep dysfunction and sexual dysfunction which comprises providing to the subject suffering from said condition, a therapeutically effective amount of a compound of formula I



(I)

wherein

R¹ is a straight-chained alkyl of 1 to 6 carbon atoms, or a branched chain alkyl of 3 to 8 carbon atoms; and

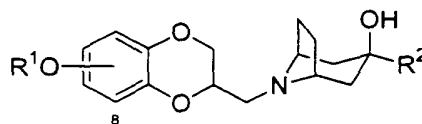
R² is phenyl, naphthyl, anthracyl, phenanthryl, pyridyl, pyrimidyl, triazinyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, benzothienyl, oxazolyl, or thiazolyl each optionally substituted with 0 to 3 substituents selected from straight-chain alkyl of 1 to 6 carbon atoms, branched-chain alkyl of 3 to 8

carbon atoms, alkoxy of 1 to 6 carbon atoms, mono- or dialkylamino of 1 to 6 carbon atoms, nitro, halo, amino, cyano, trifluoromethyl, trifluoromethoxy, and hydroxy;

and pharmaceutically acceptable salts thereof.

5

27. A method of treating a subject suffering from depression comprising providing to the subject suffering from said condition, an antidepressant amount of a serotonin selective reuptake inhibitor and an amount of a compound of formula I



(I)

10

wherein

R¹ is a straight-chained alkyl of 1 to 6 carbon atoms, or a branched chain alkyl of 3 to 8 carbon atoms; and

15

R² is phenyl, naphthyl, anthracyl, phenanthryl, pyridyl, pyrimidyl, triazinyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, benzothienyl, oxazolyl, or thiazolyl each optionally substituted with 0 to 3 substituents selected from straight-chain alkyl of 1 to 6 carbon atoms, branched-chain alkyl of 3 to 8 carbon atoms, alkoxy of 1 to 6 carbon atoms, mono- or dialkylamino of 1 to 6 carbon atoms, nitro, halo, amino, cyano, trifluoromethyl, trifluoromethoxy, and hydroxy;

20

and pharmaceutically acceptable salts thereof, said amount of compound of Formula I being effective to increase the onset of antidepressant efficacy.

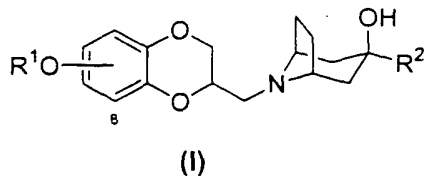
28. The method of Claim 27 wherein the subject is a human.

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29. The method of Claim 27 wherein the serotonin selective reuptake inhibitor is sertraline, fluvoxamine, paroxetine, venlafaxine, duloxetine, citalopram, fluoxetine or metabolites thereof.

30

30. A pharmaceutical composition comprising a compound of Formula I



wherein

5 R¹ is a straight-chained alkyl of 1 to 6 carbon atoms, or a branched chain alkyl of 3 to 8 carbon atoms; and

R² is phenyl, naphthyl, anthracyl, phenanthryl, pyridyl, pyrimidyl, triazinyl, furyl, pyrrolyl, pyrazolyl, indolyl, imidazolyl, benzofuryl, benzothienyl, oxazolyl, or thiazolyl each optionally substituted with 0 to 3 substituents selected from
 10 straight-chain alkyl of 1 to 6 carbon atoms, branched-chain alkyl of 3 to 8 carbon atoms, alkoxy of 1 to 6 carbon atoms, mono- or dialkylamino of 1 to 6 carbon atoms, nitro, halo, amino, cyano, trifluoromethyl, trifluoromethoxy, and hydroxy;

and pharmaceutically acceptable salts thereof; and a pharmaceutically acceptable
 15 carrier or excipient.

31. The composition of Claim 30 further comprising an antidepressant amount of a serotonin selective reuptake inhibitor.

20 32. The composition of Claim 31 wherein the serotonin selective reuptake inhibitor is sertraline, fluvoxamine, paroxetine, venlafaxine, duloxetine, citalopram, fluoxetine or metabolites thereof.

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